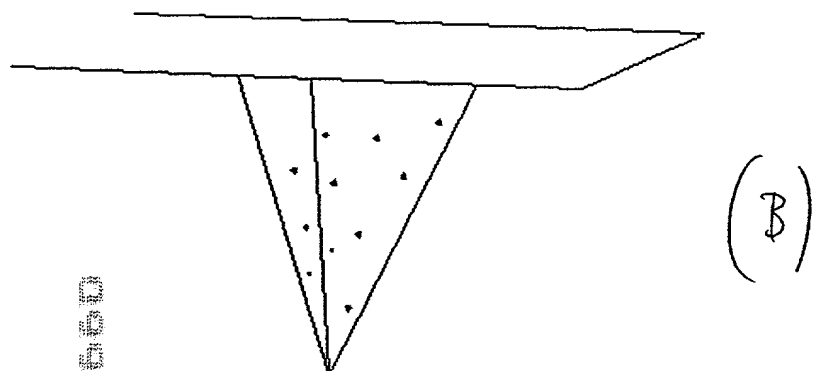


↓  
electrophoretically  
deposit catalyst



↓  
CVD growth

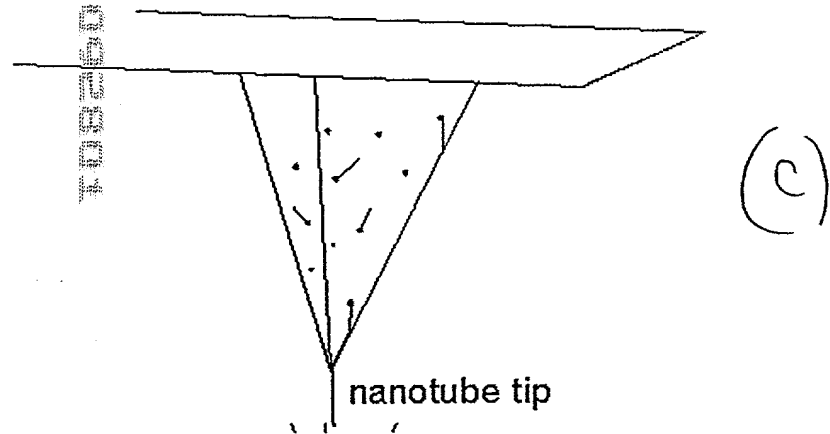


Figure 1

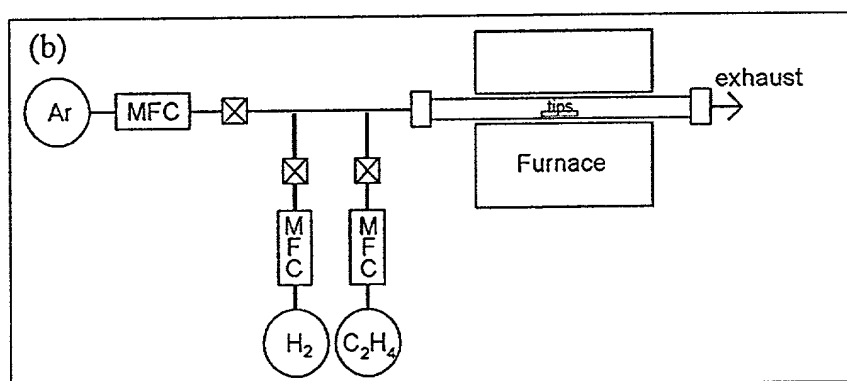
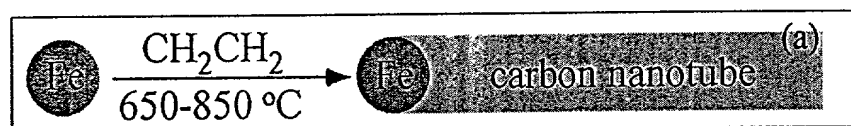


FIG. 2a, b

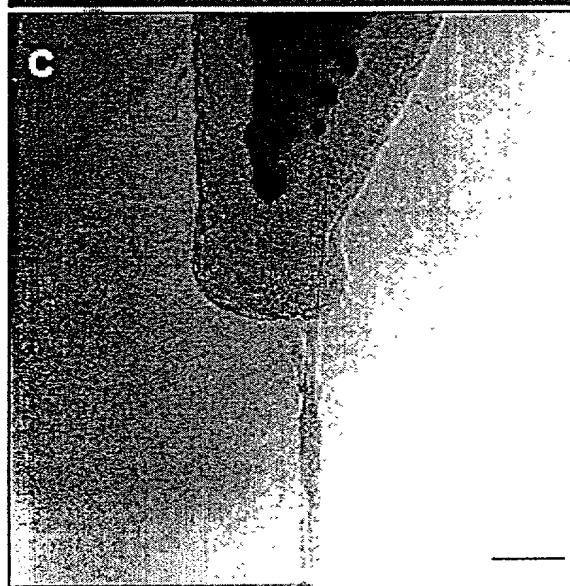
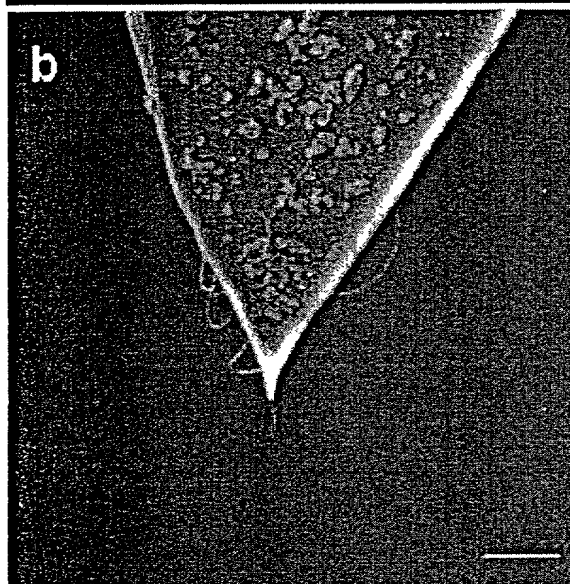
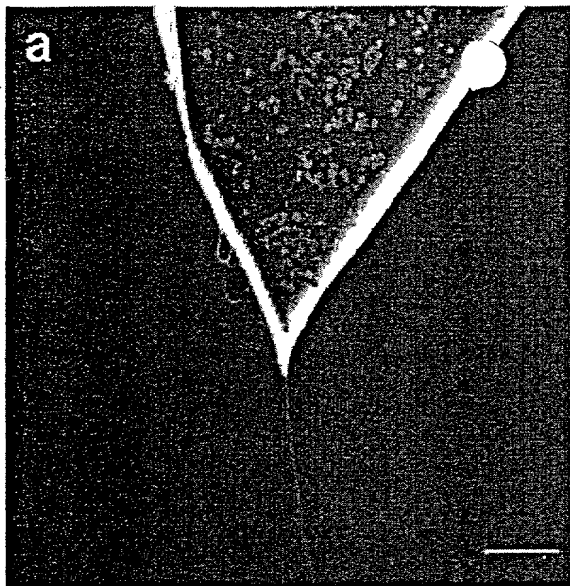
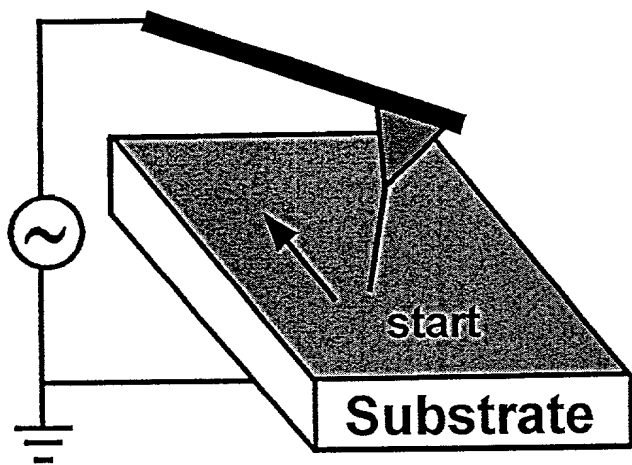
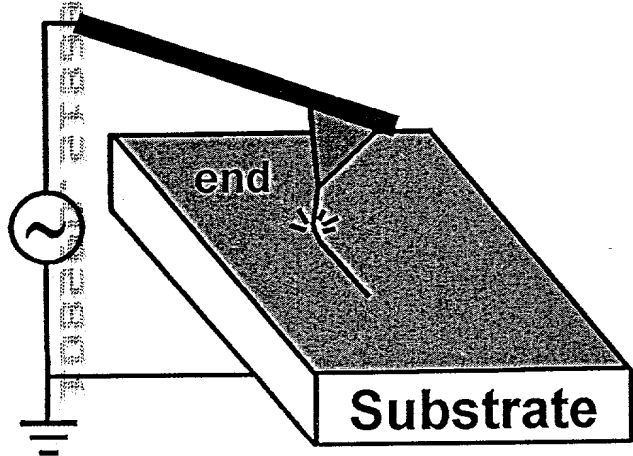


Figure 3

(a)



(b)



(c)

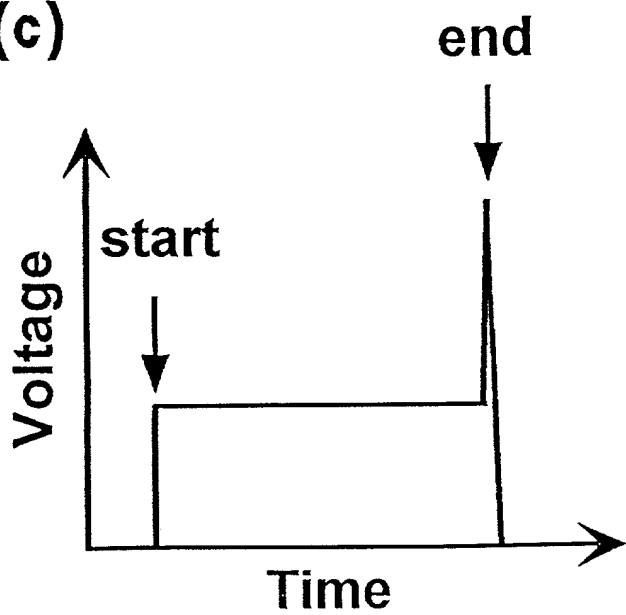


Figure 4

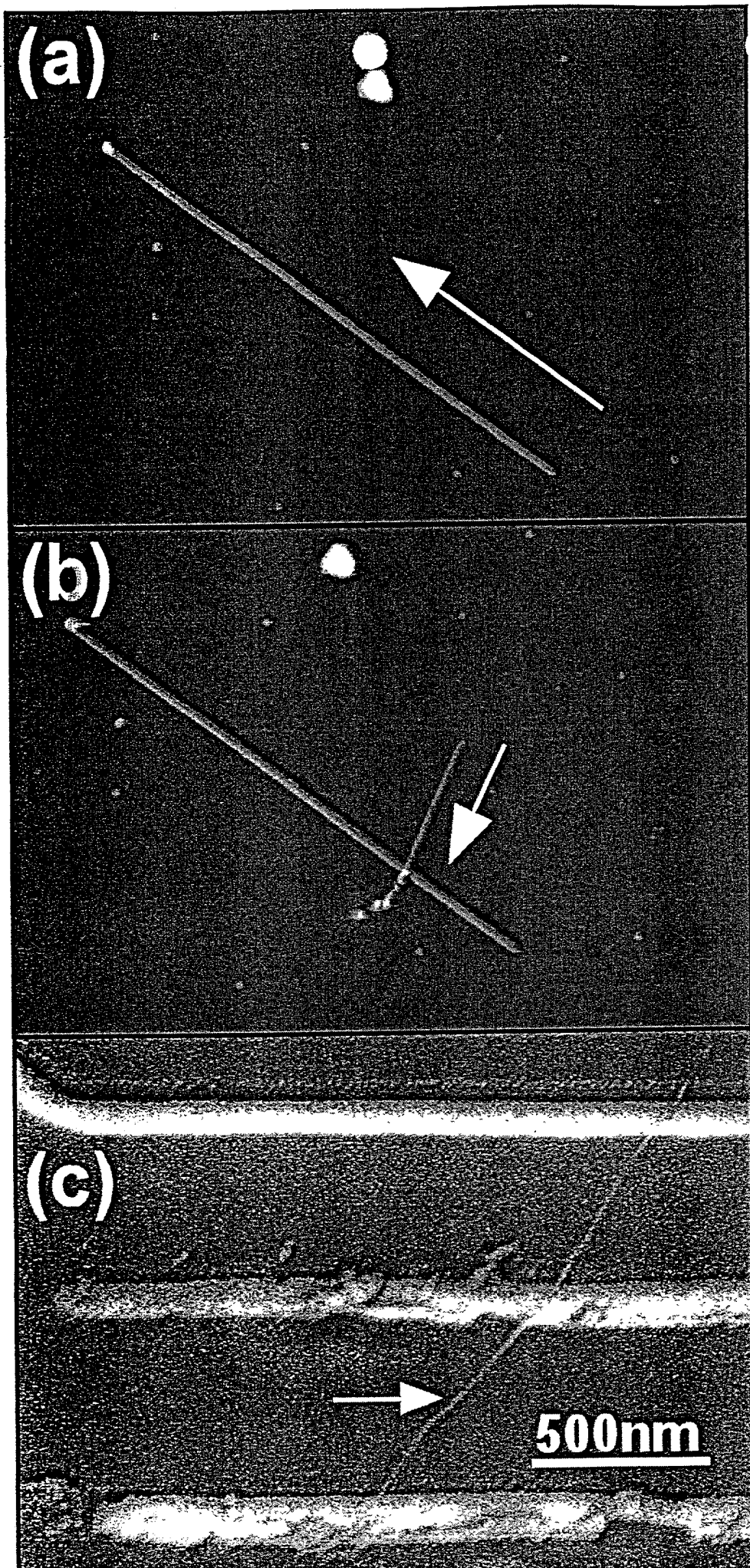


Figure 5

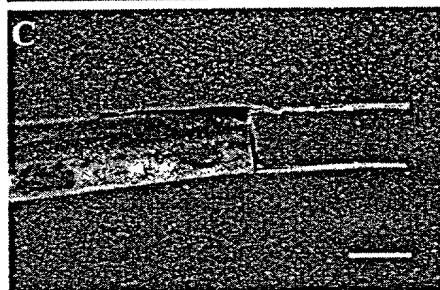
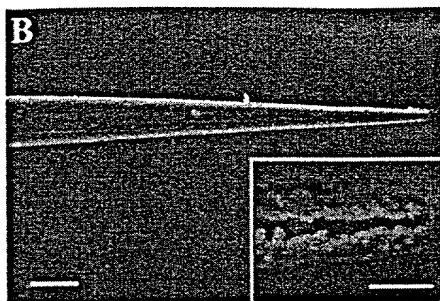
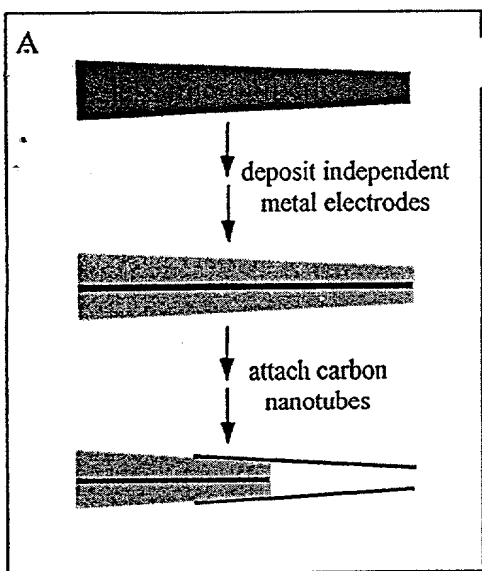


Figure 6

095694.092304  
T08250 21699650

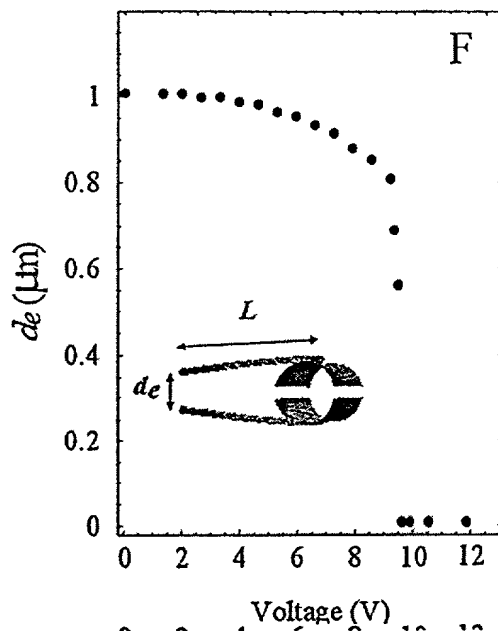
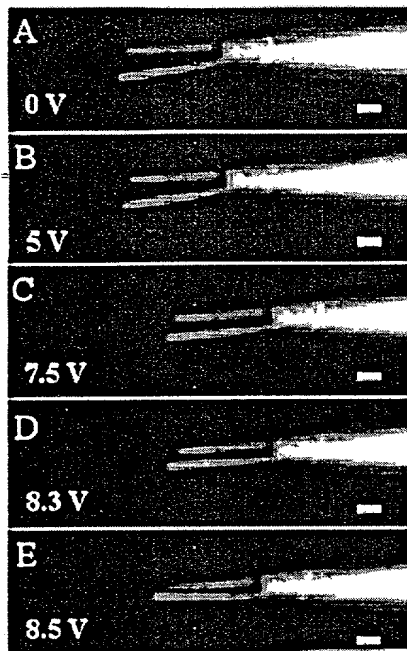
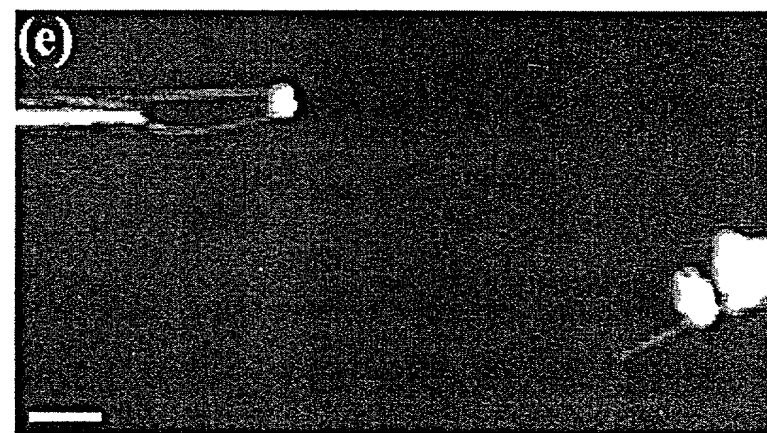
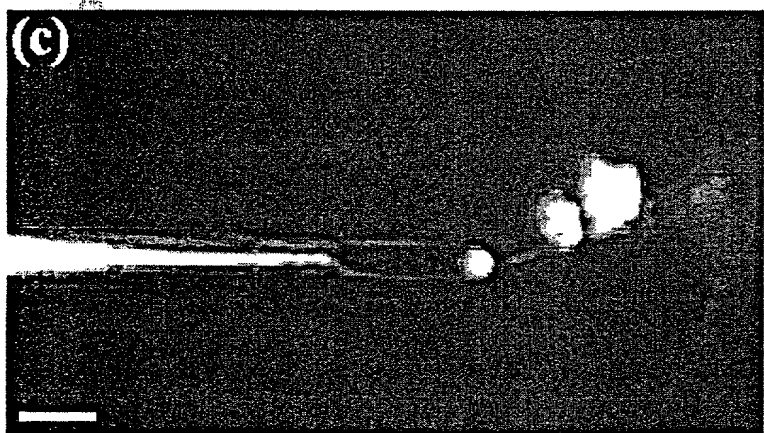
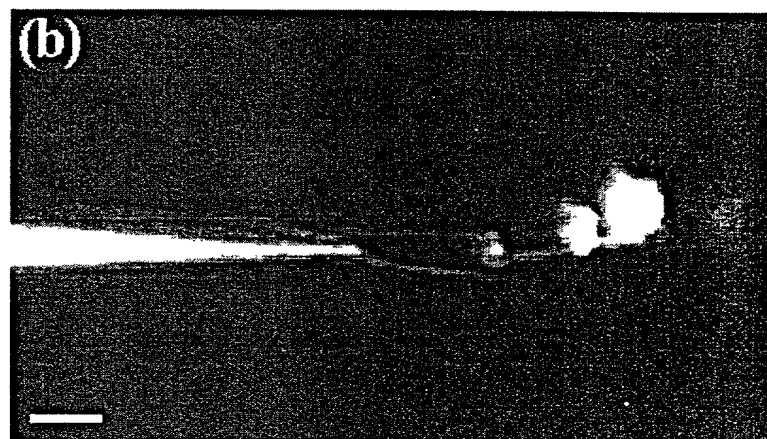
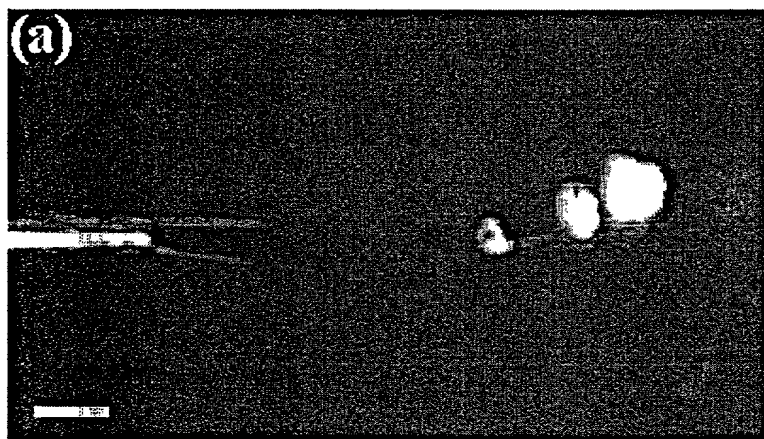


Figure 7

108250-21899450

Figure 8





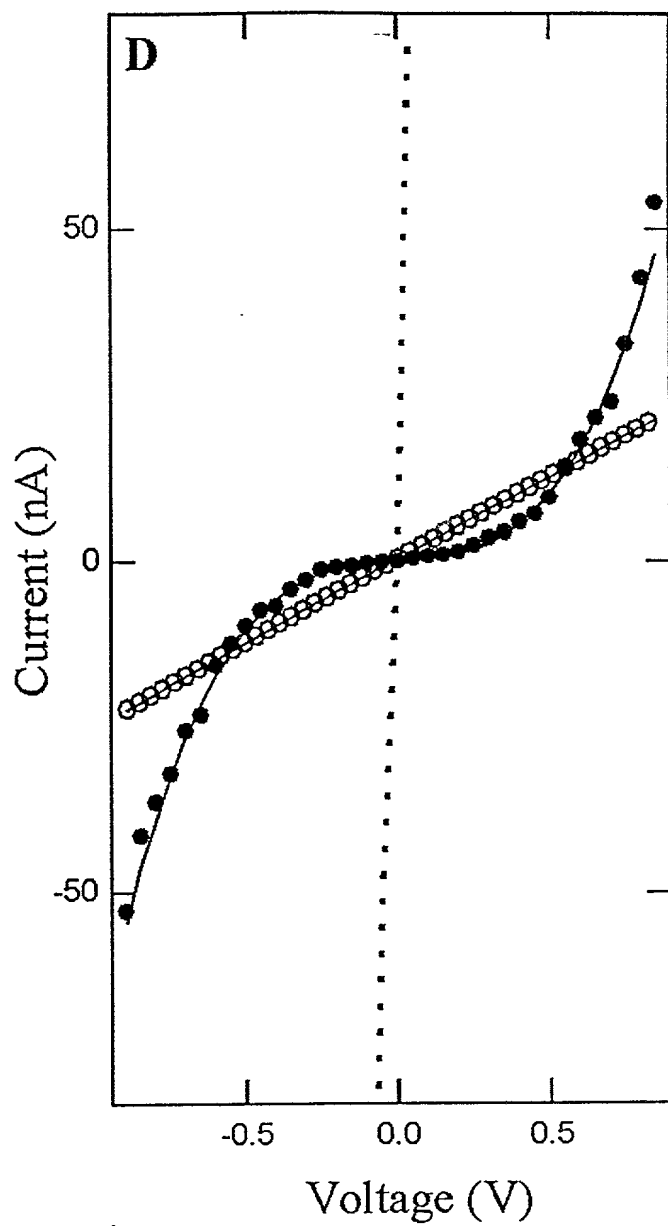
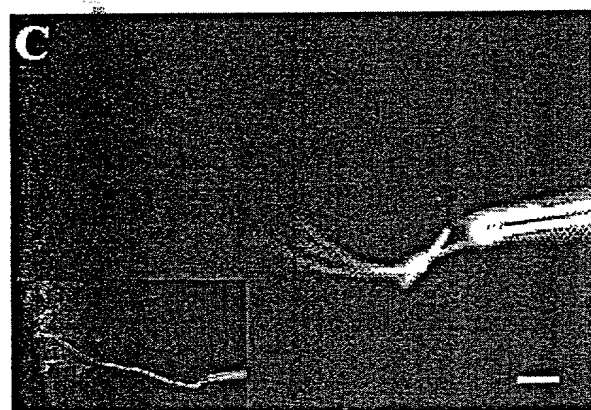
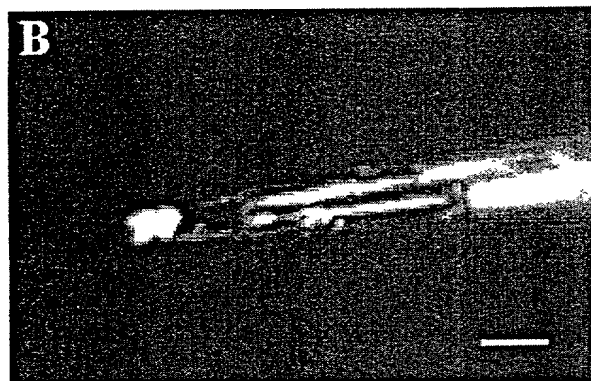


Figure 9

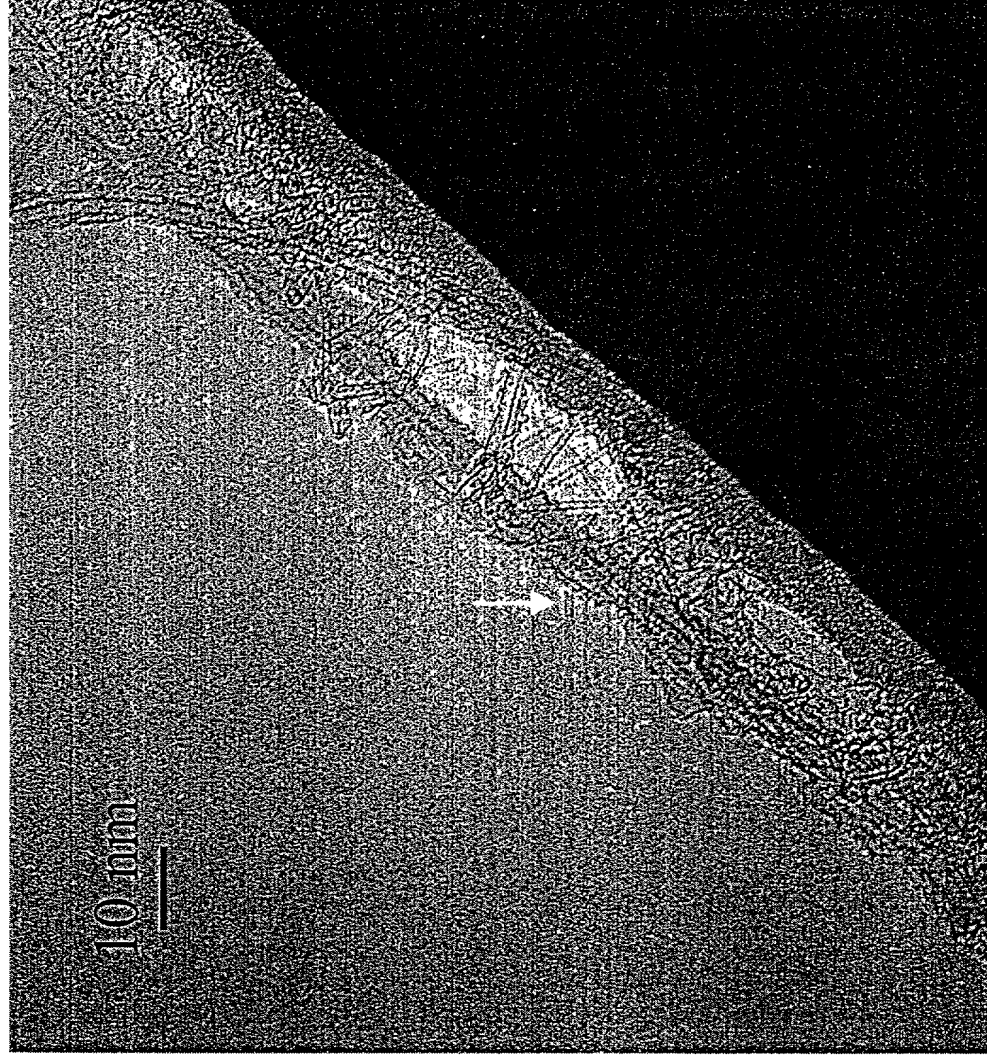
TEM picture of  $C_2H_4$  CVD large tube synthesis  
tube diameter c.a. 4nm



Catalyst: FeOx 6L (black arrow) Majority of catalyst size: 4 - 6 nm  
Carbon Source:  $C_2H_4$ , SWNT (white arrow) Majority of SWNT size: 4 nm

Fig. 10

108260 21899660



Catalyst: FeOx 2L  
Carbon source: CO  
0.8 nm SWNT (white arrow)

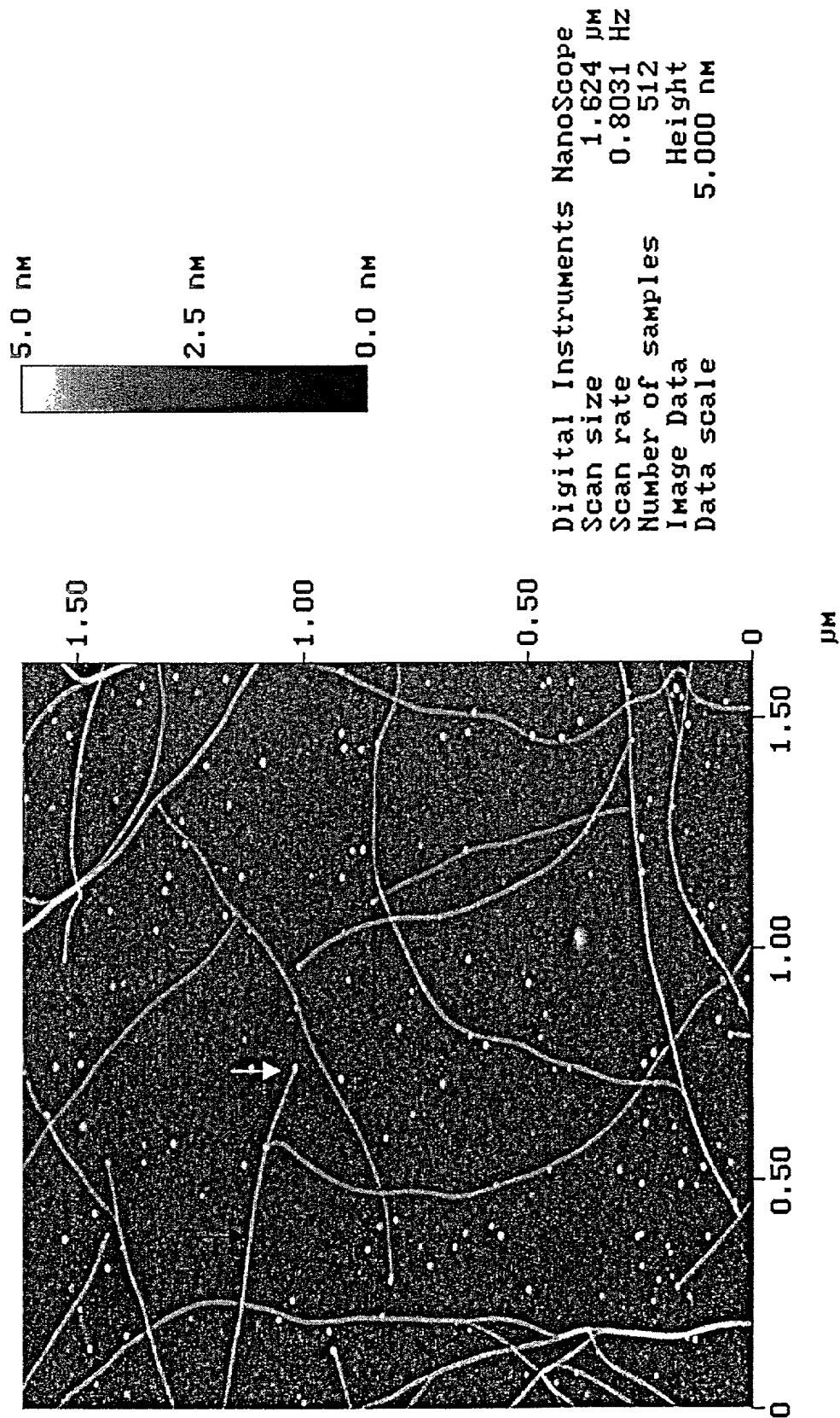
Fig. 11



Catalyst: FeOx 2L (black arrow)  
 Carbon source: CO, SWNT (white arrow)  
 Majority of catalyst size: 1.5 – 3.5 nm  
 Majority of nanotube size: 1.3 – 2.3 nm

Fig. 12

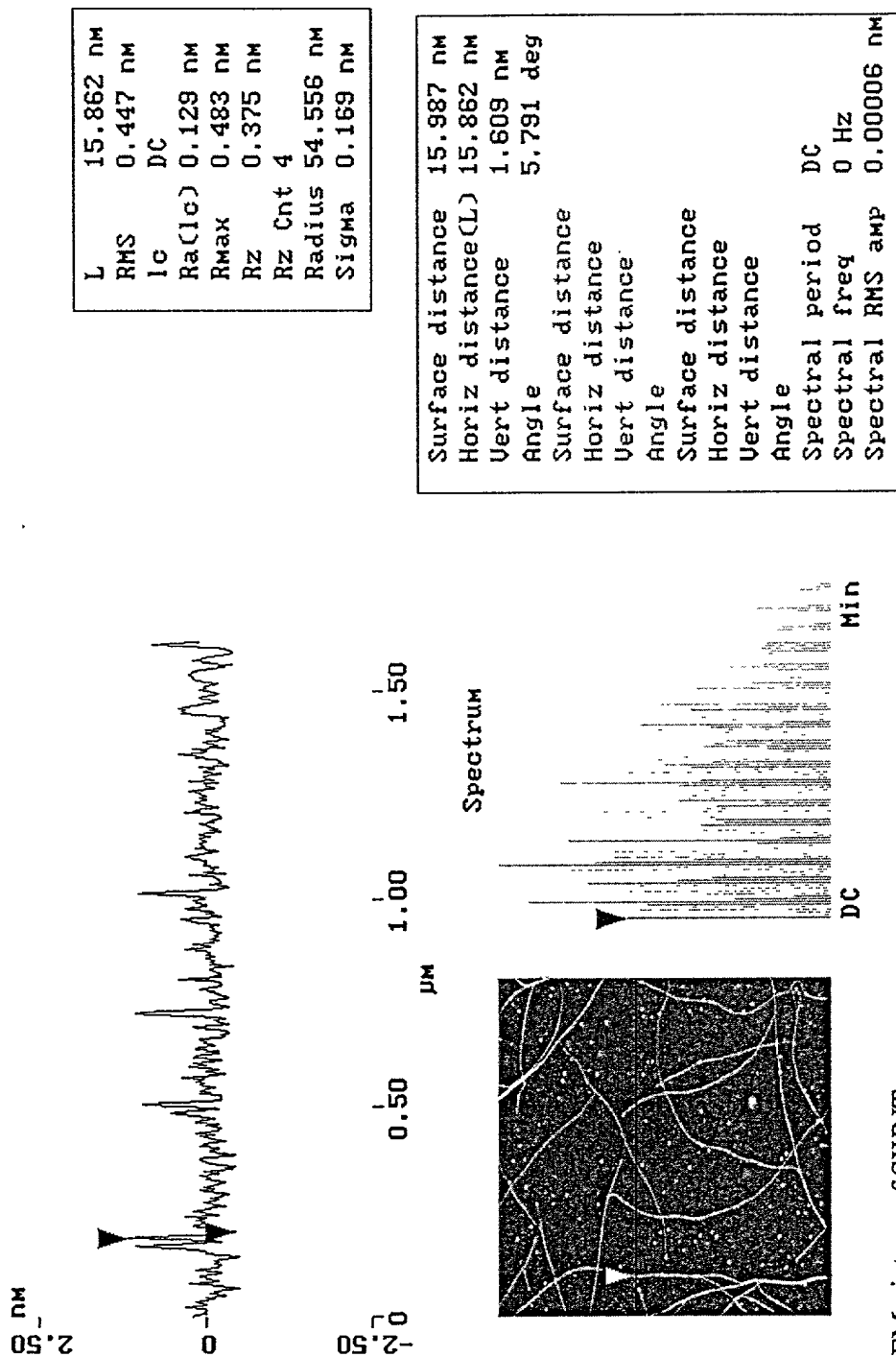
108260-27395660



Catalyst: FeOx 6L (white arrow)  
Carbon source:  $\text{C}_2\text{H}_4$ , SWNT (black arrow)

Fig. 13

108260 21899660



AFM picture of SWNT

Fig. 14



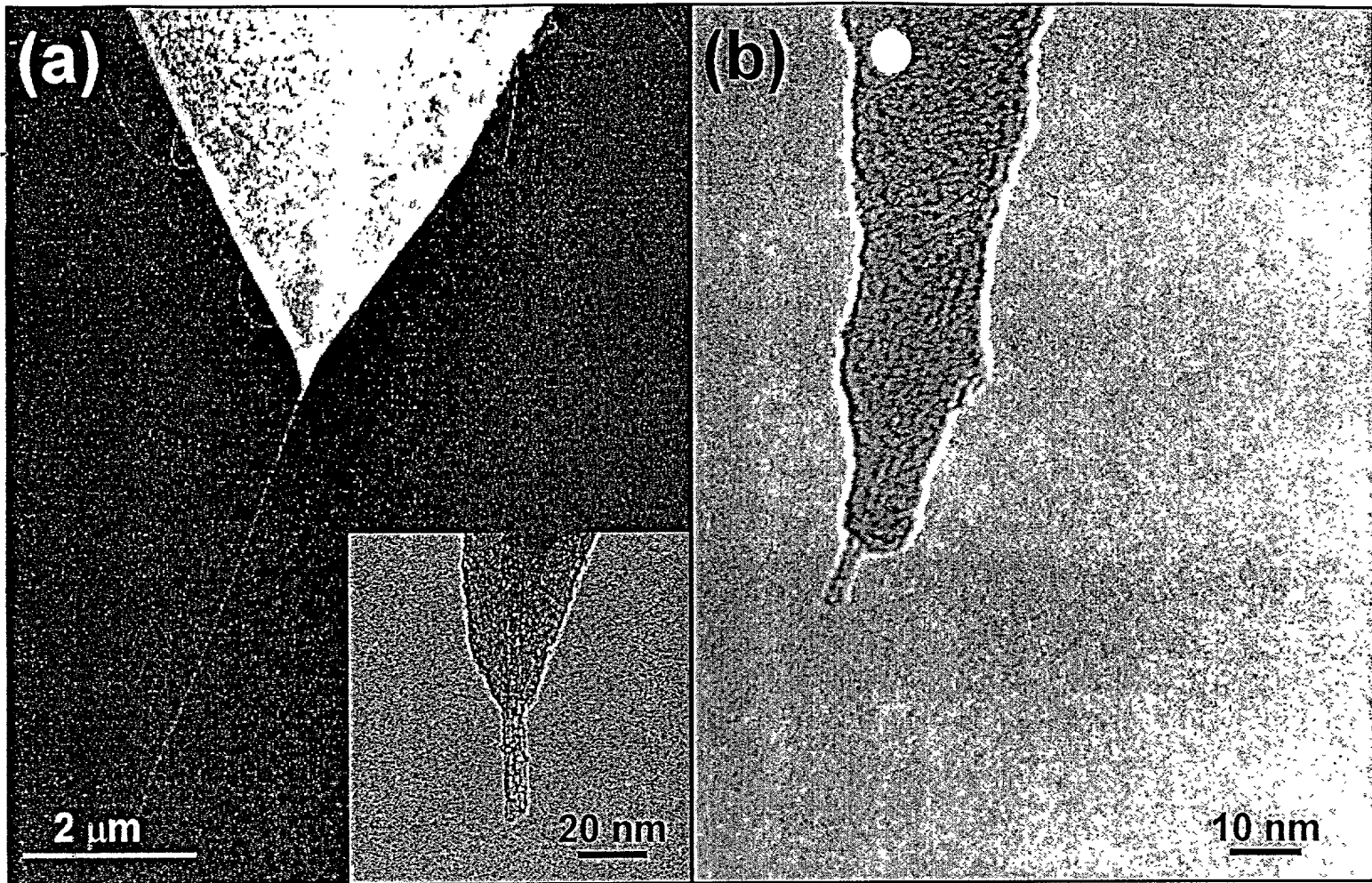


Figure 15